

Abstract of the Disclosure

Carbon nanotubes for use in a fuel cell, a method for fabricating the same, and a fuel cell using the carbon nanotubes for its electrode are provided. The internal and external walls of the carbon nanotubes are doped with nano-sized metallic catalyst particles uniformly to a degree of $0.3\text{-}5\text{ mg/cm}^2$. The carbon nanotubes are grown over a carbon substrate using chemical vapor deposition or plasma enhanced chemical vapor deposition. Since the carbon nanotubes have a large specific surface area, and metallic catalyst particles are uniformly distributed over the internal and external walls thereof, the reaction efficiency in an electrode becomes maximal when the carbon nanotubes are used for the electrode of a fuel cell. The carbon nanotubes fabricated using the method can be applied to form a large electrode. The carbon nanotubes grown over the carbon substrate can be readily applied to an electrode of a fuel cell, providing economical advantages and simplifying the overall electrode manufacturing process. A fuel cell using as the carbon nanotubes for its electrode provides improved performance.